## he 50 MH3 DX Bulletin

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The 50 MHz DX Bulletin was founded by Harry Schools K3HS. It is dedi-In SU MHZ DA Bulletin was rounded by Harry Schools K.3HS. It is dedicated to the understanding and utilization of long distance propagation in the 6-meter Amateur band. The current editor and publisher is Victor Frank, K6FV. Subscription rates are \$24 U.S. first class mail, \$27 Canada/Mexico airmail, and \$30 by airmail elsewhere for 12 issues. Payments may be made to k6fv through PayPal. Circulation matters and DX reports should be sent to Victor R. Frank, K6FV, 12450 Skyline Blvd., Woodside, CA 94062-4554 USA. My Internet address is victor.frank@sri.com. My web site is http://www.qsl.net/k6fv. The bulletin may be freely quoted, provided that credit is given.

DX Operations

Most of the listings in this column came from SM7AED's notebook.

Mongolia, JT1Y, JT0Y: A group of Italian radio amateurs plans to operate HF-6m with emphasis on 12m and 6m from 2 locations in Mongolia between April 19 and May 8.

Indonesia, YC6JKV: and YB6LYS, YB6PLG, YB1BOD, and YC6LAY will be active from Nias Is. (OC-161) between April 20-27. They plan to operate for 5 days on 6, 10, 15, 20,m and 40m. Details at http://www.toba-dx-group.org/nias/

Andaman Islands, VU4: A group of ten radio amateurs plan to operate 3-4 stations on 160-6m between April 18 and May 25. See http://groups.yahoo.com/group/VU-CHAT.

Mozambique, C9: Frosty, K5LBU, and Tom, WW5L, plan to operate HF, 6m, and 2m EME from Bilene from June 29-July 13. They have room for more team members. If you're interested, contact K5LBU at frosty1@pdq.net. See their web page at http://www.tdxs.net/C9.html for more details.

Malawi, 7Q7PF: Cato is listed as being active on various digital modes on 40 to 6m.

Albania, ZA/IKOOKY: Emilio, a UN Peace-Keeper in Tirana (JN91wh) until August 2006 will be active evenings from 20Z to 23Z and weekends from 0630Z onwards in FSK441A. He is active on 6m and 2m MS. He says that Tirana is surrounded by mountains, so VHF is very difficult.

Italy, IB0/IO2LB, EU-045: A group of radio amateurs from Italy plan to operate 160-2m from Ventotene Is. on April 22-24.

Monaco: as of January 26 has 50-52 MHz assigned to the amateur service with 51.2-52.0 MHz secondary shared. Also assigned are 70.0-70.5 MHz secondary shared and 135.7-137.8 MHz.

Denmark, OZ/DL2VFR: Ric plans to be active on HF-6m from Laeso Is. (JO57)(EU-088) July 23-30 including the RSGB IOTA contest July 29-30.

Svalbard, JW4GHA: Roger, LA4GHA, currently active as T98GHA until the end of November plans to operate 160-2m from Bear Island (EU-027) between December 1 and June 2006.

Jan Mayen, JX9NOA: is QRV, but indicates propagation is poor now. He plans to stay there until October 2006.

Scotland, GM, EU-189: Terie, LA3OHA, is organizing a dxpedition to Rockall in IO37, June 16-28. http://www.dxpedition.org

Spain, EH7AB/p: EH7AB is planning to activate a rare grid/locator IM96BW in Almeria in June.

Bermuda, VP9/N0JK: Jon will on 50, 144, and 432 MHz from Bermuda for the 2006 ARRL June VHF OSO Party. Outside of the contest he will focus on working Europe.

Alaska, KL7: Jimmy, W6JKV/5, decided that a warm spot with family was a better idea. See V4 below.

Haiti, HH4/W3CMP: Chris plans to travel to Haiti June 17-28 for a 6 and perhaps 2m DX pedition. He will operate from St. Louis du Nord on the north coast (FK39).

Puerto Rico, KP4/K3TRM: Frank will be on a family holidy in El Verde and plans activity on 80-6m from April 8-17.

St. Kitts, V4/W6JKV: Jimmy plans to operate 6m with good equipment and antenna from June 21 until July 2 this summer.

Aves Is., YX0A: Members of Radioamateurs of Venezuela and the Grupo DX Caracas have announced a 2006 DXpedition to Aves Island. They hope to be on the air April 19 and to operate 160-6m through two weekends. http://www.yv0.info/

Argentina: A map showing the location of LU/LW stations on 50 MHz is at http://www.lw3ewz.com.ar/mapa6/index.html It will run with Google Earth Software.

Samoa, 5W0TR a.o.: A group of radio amateurs from US 8th call district is planning to activate 3 stations on 160-6m and 144/432 satellite from Upolu between July 25 and August 10. Favored 6m frequency is 50.115.

#### **Beacon News**

Argentina, LU4HH: is a new beacon in Cordoba, FF78UP, on 50.060. The power out is 1 Watt to an omnidirectional vertical 36m above ground. LW3EWZ.

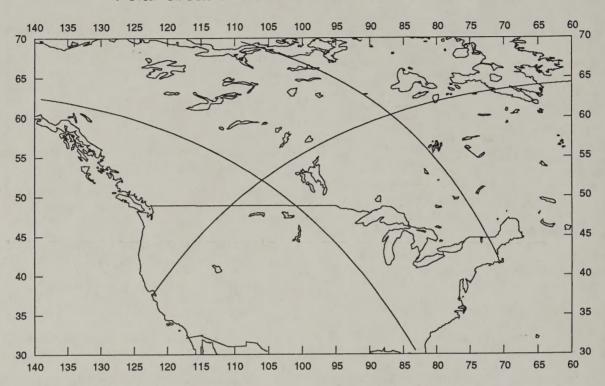
Argentina, LU1DMA:, in GF05XI is now on 50.008 running 10W.

Australia, VK3RMV: is reported by VK3MC on March 29 to · be closed down.

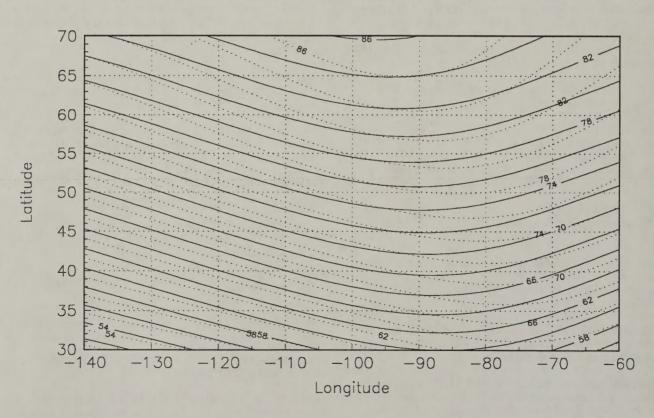
Greenland, OX3VHF: is reported by OZ1DJJ on March 26 to be back on the air on 50.045.

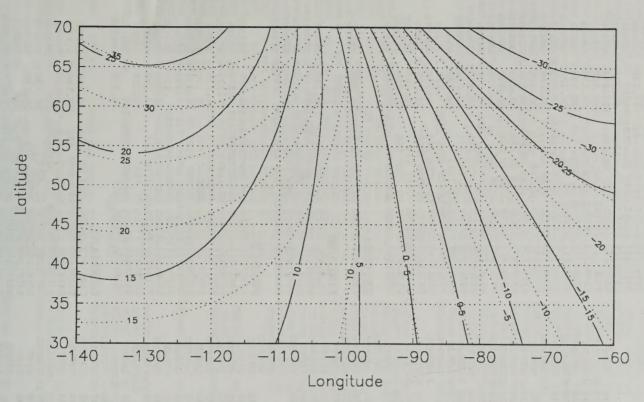
California, K6FV: 50.069 is due for seasonal change to NE antenna from SW as soon as Es season starts. (Late April?)

#### Polar Great Circle Paths Over North America



300 km Geomagnetic Field Dip Angle 2006/1960





### Changes in the Geomagnetic Field between 1960 and 2006

As I reported last month, the Earth's north magnetic pole, and magnetic field pattern is moving towards Siberia. Larry Newitt of the Geological Survey of Canada hasn't reported a new position for the north magnetic pole, but scientists have produced their latest field model based on satellite measurements. I downloaded IGRF05 (International Geomagnetic Reference Field) last month and compared its predictions for 2006 with an old 1960 model. The models (updated every five years) are of degree and order 12. They describe only the long wavelength spatial magnetic fluctuations due to sources in Earth's core. Not included are intermediate and short wavelength spatial fluctuations originating in Earth's mantle and crust. Isolated angular errors due to these of up to several degrees may be expected.

Why this is of interest to six meter DXers may be

gathered from the first plot on the previous page. It shows the first half of great circle paths from 1) San Francisco to London, 2) Boston to Sapporo and 3) Miami to Sapporo. These paths are difficult on 50 MHz, but path 1 was open by F2-layer in previous cycles. F2-layer critical frequencies generally decrease with latitude in the areas where the signals are inside the F-region for paths this far north.

F2-layer critical frequencies are more closely aligned with magnetic field dip angles than latitude. Dip angles are shown in the second figure on the previous page. The solid lines are the predictions for 2006 and the dotted curved lines are the predictions for 1960. At 70° W Longitude, the 80° dip contour has moved about 5° N over 46 years.

The figure on the top of this page shows the declination for 2006 (solid) and 1960 (dotted). The declination is the clockwise azimuthal angle that the compass needle points from true north. Changes of 5° in 46 years are evident over much of the map and increase as one approaches the location of the magnetic pole.

#### March 2006 DX Reports

The following reports of 50 MHz DX propagation are courtesy of JA1VOK, VE7SKA, W5UWB, W9JUV, K6QXY, G4UPS, and postings on the Internet.

Listings obtained from the OH2AQ reflector include distances in kilometers. These are determined preferentially from the grids in the post, and otherwise from one or both of the prefixes of the calls. Note that the latter results in VERY rough approximations to the distances, especially for large countries and call areas.

The first entry is *mmddhhii*, where *mm* is the month, *dd* is the day of the month, *hh* is the hour UTC, and *ii* is the minutes after the hour. The year is understood to be 2006. Symbols just before the call of the reporting station include: V=Video Carrier, I=Inband video sidebands, F=FM audio, B=beacon, C=CW, D=Telemetry Data, J=Digital, typically JT6M or JT65A for EME, R=RTTY, S=SSB, W=mode not mentioned (or both CW & SSB), H=heard only. BSc = backscatter.

#### **Reports of Africa**

CANARY IS. 03301553 EH8BPX 59 1365	50.110 CT1FMX
<b>GAMBIA</b> 03271557 C56W VY QSB 5081	50.100 DL3AMA
<b>SAO TOME</b> 03121117 S9SIX 589 4356	50.083 B CT1AOZ
SIERRA LEONE 03101444 9LVIDEO S3 OSB 4758	50-001 SV1DH

#### Reports of Asia

JAPAN 03080459 JR6EXN/.192 EME 10550 .031 J K1SG

# Reports of Europe

SMITDE		OZIDJJ	GOCHE	F8RZ	GU8FBO	GOCHE	GOCHE	DB6NI	EB1EH0	EB1EH0	CDEMTK
			J	5	H	7					
50.140		50.230	50.230	50.230	340 .230	50.221	50.230	329 .165	1 1626	1 1626	364
658		JT6M 980	4S 1491	943	5M MS 13	4S 1491	Q JT6M 1491 50.23	J>J050	J>IN73DN	JN78CJ>IN73DM 162	SAS.TORO
JP90XD 658		CO ST	JT6M N	5	C	5	C	5	JN78C	JN78C	55 TNI
IS. OHOA	V	OE5MPL	OE5MPL	OE5MPL	OE5MPL	OE5MPL	OESMPL	OESMPL	OE5MPL	<b>OESMPL</b>	OFSYRT.
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	08	50.2	50.2	50.2	50.2	50.2	1823	50.2	50.1	50.1	50.1	50.1	50.1	0.1	0.2	50.230	0.0
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# CZECH REPUBLIC

03021417 0232W CQ JT6M MS 1086 .230 G4PCI 03040924 020JD JT6M MS 1128 50.230 H GU8FBO 03040928 021DJJ JT6M MS 1128 50.235 J FRRZ 03040950 020JD CQ JT6M MS 1086 .230 G4PCI 03061910 020JD CQ JT6M MS 1086 .230 G4PCI 03061911 020JD CQ JT6M MS 1086 .230 G4PCI 03061911 020JD CQ JT6M MS 1086 .230 G4PCI 03061911 021BN MS/10NO 1086 50.230 G4PCI 03071533 0232W JT6M MS 1128 50.230 G4PCI 03091826 0232W JT6M MS 1128 50.230 G4PCI 03091949 022LD JT6M MS 1086 50.230 G4PCI 03091949 022LD JT6M MS 1086 50.230 G4PCI 03120910 0232W JT6M MS 1086 50.230 G4PCI 03121752 0232W JT6M MS 1086 50.230 G4PCI 03211752 0232W JT6M MS 1086 50.230 G4PCI 03211752 0232W JT6M MS 1086 50.230 G4PCI 03211752 0232W JT6M MS 1086 50.230 G4PCI 03221143 0232W JT6M MS 1086 50.230 G4PCI 03221144 0230WHZ 55 JOS59JO43 257 D12NO 03221144 0250WHZ 55 JOS59JO43 257 G4PCI 03221144 0250WHZ 36 JT6M 1086 50.230 G4PCI 03221144 0250WHZ 36 JT6M 1086 50.230 J G4PCI 03221144 0250WHZ 36 JT6M MS 1086 50.230 J G4PCI 03221144 0250WHZ 36 JT6M 1086 50.230 J G4PCI 03228W JT6M MS 1086 50.230 J G4PCI 03228W JT6M MS 1086 50.230 J G4PCI 03221144 0250WHZ 36 JT6M MS 1086 50.230 J G4PCI 03228W JT6M MS 1086 50.230 J G4PCI 03228W JT6M MS 1086 50.230 J G4PCI 03228W JT6M MS 1086 50.230 J G4PCI 03221144 0250WHZ 36 JT6M MS 1086 50.230 J G4PCI 03228W JT6M MS 108

HA6NN PF7M HA3MQ HA6NN

OZIDJJ JO65HP>JN98 905 .232 OZIPIF JO65AN 571 50.230 OZIPIF CQ JT6M 1218 50.230 OZIPIF 67 JO65AN>JN98 917

03291539 C 03310831 C 03311006 C

F5DQK
ON6AB
PERZS
GU8FBO
OZ2PJ
ON6AB
PASUL
E17BMB
OZ2LD
GM4NFC
GW7SMV
GW8FBO
GU8FBO
GU8FBO
GU8FBO
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GU8FBO
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03260924 GOGMS JT6M 927 50.230 J260934 G4PCI JT6M 927 50.230 J3261044 GOCHE JT6M TR>JO21 1678 J2261042 GOCHE JT6M TR>JO21 1678 J2261042 GOCHE JT6M TR>JO21 1678 J2261439 G4DEZ JT6M TR>JO21 1678 J2261439 G4DEZ JT6M TR>JO21 1678 J2261439 GADEZ CQ TR 596 50.230 J2281207 ZEDTWS JR86 50.230 J2281742 GX7VHF 1922 50.135 J2281742 GX7VHF GC 596 50.135 J2281913 GX7VHF MEAK MS 1086 50.135 J2281913 GX7VHF J76M TR 265 50.230 J2282043 G3SED CQ 333 50.144 J2282043 G3SED CQ 333 50.144 J2282043 G3SED CQ 333 50.145 J2290917 G3SED TF6M TR 265 50.230 J2290917 G3DUYM JT6M TR 265 50.230 J2290917 G3DUYM JT6M TR 265 50.230 J2290917 G4DEZ JN98>JO31110 G4DEZ QUICK BRYN 1550 .230 J3311145 G4DEZ QUICK BRYN 1550 .230 J3311145 G4DEZ QUICK BRYN 1550 .230 J3311185 G4DEZ CQ JT6M 596 50.230 J3311857 G4DEZ CQ JT6M 596 50.230 J3311857 G4DEZ CQ JT6M 596 50.230 J3311857 G4DEZ CQ JT6M 596 50.230

03060845 03061034

SO5AS GU8FBO I2WSG EC1DMY

FINLAND

SP6MLK SP6MLK SP9HWY SP6MLK

ВВ

03091951 OH1AU >JP81NG 684 50.160 03092010 OH5RAC MS KP30>J080 1289 03120757 OH5RAC V.WEAK MS 1173 .033 03151859 OH8VJ JT6M 1173 50.230 03260706 OH5RAC PINGS KP30>J080 1289

ESTONIA 03051225 ES6DO KO27>JO20 1550 50.235

03091820 03091820 03091820 031092117 03101518 03110533 03112233 03112233 03112233 03112233 03112233 03112233 03112233 03112233 03112233 03112233 03112233 03112233 03121647 03121647 03121647 03121948 03151349 03151349 03191103 03191103 03221349 03221349 03221349 03221349 03221349 03221349 03221349

FRANCE

OZIMAX H G3UYM J G42DJJ J G42CI SP9HWY J SP9HWY GESMPL EB1EHO GOCHE GOCHE GOCHE GOCHE GOCHE EB1EHO GW6TEO

03011012 F6GEX IN97NA>J057GI 1383 03011012 F6GEX SHORT BURST 813 .230 H 0 03040931 F8RZ MS 1188 50.225 J 0 03041013 F8RZ JT6M 813 50.225 J 0 03050751 F8RZ JT6M 813 50.225 J 0 03050946 F8RZ 43DB JN78CJ 768 50.230 03050946 F8RZ 43DB JN78CJ 768 50.230 03090702 F8RZ IN73DM>IN95 433 .230 03101503 F6GEX CQ JT6M 813 50.230 03110181 F6GEX CQ JT6M 563 50.230 03112092 F6GEX CQ 813 03140845 F6CHT IN73DM>IN88EC 534

03071812 DF2UQ JT6M MS 1012 50 03121215 DL4JU 59+>JO30 431 50 03121938 DJ0LZ BOOMING 1509 50 03131643 DL7ARM 529 JO43>JO62 28 03171509 DH3ZK CQ JO41 50 03261201 DK5IR JN49IC 513 50 03261209 DLINUX 519 MS>JO80IK 51 03271558 DJ4LK JN59AA TR 502 50 03281949 DK6JL JO31DH 657 50

H 50.230 50.130 50.110 289 50.150 50.155 51.8 50.100

G4PCI DL8PM Z32ZM DL8BDU DL0FDX DL7ACN SP6MLK DL3AMA G4BWP

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SP9HWY 468 S05AS CQ JT6M SP9HWY J090NH> S05AS CQ JT6M	03221532 559F CQ JT6M MS 150 03241620 559F JT6M MS 150 03241730 559F JT6M 1366 03241730 559F JT6M 1366 03250909 559F JT6M MS 150 03271700 559F CQ JT6M MS 03271700 557RR 539>JN8BF 03291439 559 JT6M IVO 4 03301625 559F QUICK MS
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VEN  JX7SIX 579>1075 1678 50.079 E  JX7SIX 579>1075 1678 50.079 E  LX3W 685  LX3W 685  LX3W 685  LX3W 685  LX3W 685  LX0SIX 59 1418  LX0SIX 419>J050UF 333 .022 E  LX0SIX 419>J050UF 333 .022 E  LX0SIX 419>J050 306 50.022  LX0SIX 419-J050 306 50.022  LX0SIX 419-J039>J050 306  LX0SIX 419 JN39>J050 1028  LX0SIX 419 JN39>J050 306  LX0SIX 419 JN39	UTEM UTEM UTEM UTEM UTEM UTEM UTEM CQ UTEM CQ UTEM CQ UTEM CQ UTEM
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50.230 J 50.230 J 50.230 J 50.225 J 50.230 S 50.230 S 50.230 S 50.230 J 50.230 J 60.230	50.230 J 444.230 J 550.168 B 550.020 B 550.155 50.155 50.235 J 50.235 J
	4 4 W W
O JT6M 1128 O CQ JT6M 265 O 1340 O 573 O 176M 265 O CQ JT6M 1218 O T6M MS 1218 O JT6M MS 1218 O JT6M MS 1218 O JT6M 1218 O JT6M 1329 JT6M MS 1218 CQ JT6M 1329 JT6M MS 1218 CQ JT6M 1329 JT6M MS 1218 CQ JT6M 1329 JT6M 1814 CQ JT6M 1329 JT6M 1814 CQ JT6M 1329 TT6M 1814 CQ JT6M 1329	0 JT6M 155 X 59 JN61>JN65 JN52>JN45 369 L VY WEAK-JN65 B 539 JN62>JN65 O MACERATA 779 N 1019 N 1019 L LUIGI JN45>IO L LUIGI JN45>IO L JUIGI JN45>IO L JUIGI JUIGEN S 27 K CQ JT6M NS 927 K CQ JT6M 1085
FIRE O UT 6M 112; FIRE O CO UT 6M 112; FIRE O CO UT 6M 112; FIRE O CO UT 6M 128; FIRE O UT 6M 128; FIR	1X 59 1T6 1X 59 1N JN 52 1N JN
S. E. C.	01 IKZGSO 44 IV3SIX 33 IZSDN J 34 IZSDN J 58 IW8RSB 54 IQ6VP 5 27 IZ6HAO 44 IKOFTA 23 IZZGOL 31 IW4EHZ 03 IW0FFK

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03090002 PY5AQ CQ SSB 4951 50.110 FM5JC 03092221 PP5AR 52 5571 50.110 W WP3UX 03092308 PY3DU CQ 50.110 PP5AR 03112327 PP5AR CQ 50.110 PP5AR 03112347 PP5AR 51>FK68 5571 50.110 PP5AR 03112342 PY2RA 51>FK68 5571 50.110 H WP3UX 0315342 PYZHA 51>FK68 5571 50.110 H WP3UX 03150004 PYZHP GI64>GG44 2263 .120 PP8ZX 03150104 PYZHP GI64>GG44 2263 .120 PP8ZX 03152129 PW8TR 59>GF15 1009 50.110 CX4CR 03152129 PW8TR CQ 4951 50.110 FP5AR 0322323 PP5FMM 59 CQ 4951 50.110 FM5JC 03240037 PP5AR 53 4951 50.110 FM5JC 03271824 ZZ1UDR W/ CX5CR GF15 1009 CX4CR	308236 XQ6ET 53 5907 50.110 S 3142157 CE4ETZ NO TAKERS 2184 .110 S 315721 XQ6ET 59>GF15 1281 50.110 S 3172056 CE1/MUSIC 48.3 48.4 7082 319220 CE MUSIC >DM33	GUYANA  GUYANA  03070013 8R1EA 51 >GG48 3232 50.110 PR82X  03070016 PJ2/W9JUV 77>GG51KR 5011 PP5AR  GUYANA  03070133 8R1EA 51 >GG48 3232 50.110 PY2SRB  PARAGUAY  03100022 ZP5CGL W/ WP4KJJ>FK68 5009 WP3UX  03112301 ZP6CW 579 859 50.110 PR82X	TRINIDAD & TOBAGO 03010040 914AT 559 4523 03062340 914AT 559 9GG48 3721 50.015 B PP5JD 03082358 914AT WEAK 4523 URUGUAY 03112056 CX3AN GF15 03112256 CX7BBR CQ 1009 03142335 CX4CR GI64>GI13 50.110 PR8ZX	CX2AQ 59 GF15>FK68 5986 CX2AQ 50.100 CX5CR 50.110  ELA YV4AB 579 50.124 B YV4AB 559-GC48 4064 50.025 B YV4AB 559-GC48 4064 50.025 B YV4AB 559 4839 50.025 B YV4AB 559 4839 70.025 B YV4AB 559 4839 70.025 B YV4AB 559 4839 70.025 B
03120638 VK8RAS 5439 03120650 VK8RAS 599 >PM85 03120650 VK8RAS 599 >PM85 03160412 V73SIX 03160412 V73SIX 03160430 V73SIX NEW CALEDONIA 03030530 FK8SIX >PM95 03030530 FK8SIX >PM95 03030604 ZL TV VID S3 >PM74 03030604 ZL TV VID S3 >PM74 03030127 ZL TV VID WEAK >CM88 03070127 ZL TV VID WEAK >CM88 03180623 ZL TV VID S7 45.24, S5 45.26 V JG3LEB		W 52 5952 50.115 W GF055G164 3452 50.110 GF055G164 3452 50.110 X GF055G164 3452 .130 S CQ 1158 50.110 Y 599 50.071 B 1158 50.110 H 599 5G48 1643 .082 B CQ 1158 50.110	Z 1158 R GIG4>FF78 3445 E LUS >DM33 9254 S DM33 H 57 FF94>FK68 6 M 59 FF95>FK68 5 Z 58 FG05>FK68 4	8 59 S11va 50.110 53 D1ck 50.110 56 Pedro G164 50.110 33 GG51 50.110 59 Marcos GG87 50.115 CQ 4951 50.115 B GG48 803 50.110 W
03181023 KOGUV 52A CHIRPY 1535 .008 B K9MU 03182100 KOKP 55A EN36>EN44 271 .073 B N8CJK 03182102 KOKP 54A EN36>EN44 271 .073 B K9MU 03182107 KOKP 51A EN36>EN44 271 .073 B K9MU 03182122 KOGUV 53A EN26>EN44 382 B K2XK 03182131 KOKP 55A EN36>EN4 192 .099 K9MU 03182148 NOUR 52A EN35>EN4 192 .099 K9MU 03182349 KOMVJ 57A ROCER 1535 50.125 K9MU 03180215 NOUD 52A DN87>DN17 03190015 NOUD 58A DN87>DN17 03190021 NOUD 58A DN87>DN17 03190023 KOKP 53A EN36>DN70 1173 K9MU M3190034 NOVZJ EN55>EN37 SON 1173 H 0319015 KOKP 53A EN36>DN70 1173 H 0319015 KOKP 529 ER378>EN37 SON 1828D H 0319015 KOKP 529 EN378>EN37 SON 1828D H 0319015 KOKP 529 EN378>EN37 SON 1828D	KOUNT EM8 SEM89 699 50.125 KCOATQ EM29 1773 50.125 KCOHFL EM83-EM17 1341 .125 KCOUY EM48-EM89 699 50.125 KOUVY EM48 1213 50.125 KOUVY EM48 1213 50.125  REPORTS OF OCCANIS LIA, General VK TV VID 55 >PM74 46.172 V VK4 TV VID 59 >PM74 46.172 V	VK4 TV VID 59 >PM74 46.172 V VK4 TV VID 59 >PM85 46.172 V VK4 TV VID 59 >PM85 46.172 V VK4ABW >QM05 50.0875 B VK4ABW 59 >PM63 50.120 S VK4RTL >QM05 50.0875 B VK4 TV VID 59 >PM74 46.172 V	55 VID S6>PF95GA 46.172 V S49 >PF95GA VID WEAK>PM85 46.172 V S9 S9 50.058 B S9 50.088 B VID 29+>QM05 46.172 V VID S9 >PM74 46.172 V VID S9 >PM74 46.172 V VID S9 >PM74 46.172 V VID S9 >PM74 46.172 V	Tralia-VK6  VKGRPH VKGKDD SSB STRONG 6190 .110 VKGRDS 579 >PM74 50.3039 VKGKDD 6190 50.110 VKGKSX > 579 >PM74 50.3039 VKGKSX > 579 >PM74 50.3039 VKGKSX > 579 >PM74 50.3039 VKGKSX > 578 > 50.110 VKGRSX > 578 > 50.110 VKGRSX > 578 > 50.047